

Dstl careers: Dr Tim Kendall, principal scientist and laser physicist

Laser development is a next-generation technology that could revolutionise the battlefield and reduce the loss of life and equipment.

A route into laser physics

I was doing a degree in Applied Physics, which included a year in industry at the Rutherford Appleton Laboratory. I worked with large and dangerous amounts of Krypton Fluoride on a laser system called 'Titania' for Inertial Confinement Fusion research, which is terrawatt peak powers in very short pulse duration.

My job wasn't glamorous in the slightest, and I understood next to nothing – but I found it all very fascinating. It was then I decided to change my degree to Optoelectronic Engineering ('Laser Physics') in my final year.

For my final year project I built a laser, which led to me being accepted on the PhD programme at the University of Southampton's Optoelectronics Research Centre. After working as a research fellow for a couple of years I eventually ended up getting a job in industry building optical fibre lasers, but it was working in defence that really interested me – and that's when I came to Dstl.

Dstl started the building and specification of lasers for air survivability, such as laser jamming of optically guided threats, with small inroads into the realms of laser protection and threat warning. While working at Dstl, Dr Kendall had the opportunity to help develop a basic Laser Directed Energy Weapon (LDEW) capability at the Porton Down electro-optic facility.

Dr Kendall now works within the energy weapons team, spreading his work between laboratory, office and home. He also leads all laser range activity, as the only Trials Conducting Officer with a licence to run laser trial at Dstl Porton Down.

As well as his work on the range, Dr Kendall is the Lead Laser Physicist for the Laser Directed Energy Weapon (DEW) Programme, offering advice on technology development and experimental trials activities, with some involvement in laser safety.

The best job in Defence science?

I get to push the boundaries of what is physically possible – in this case I get to make things very hot, very quickly, with a cleverly-engineered beam of single-frequency light.

I get to work with like-minded people within Dstl, academia and industry, and I really believe that we are, by researching the subject, making the world a better and safer place.

Every day at Dstl is different, there is very rarely a boring day, I love problem solving and I enjoy my work, which I think very few people get to say.

Did I mention that I get to burn stuff with a big laser?

Work-life balance

I have a very demanding daughter at home and Dstl have gone out of their way to let me know she comes first. I get to spend time pushing my daughter on a swing, so what's really not to like about that work-life balance?

Next step for laser science

Dr Kendall is looking forward to seeing his work in action. Once the science has been fully determined, the first laser weapons will undergo [user testing on a number of Royal Navy and British Army platforms](#).

[World first partnership to tackle global migration crisis](#)

The government has today (Thursday 14 April) set out bold new plans to tackle illegal migration, control our borders and crack down on the criminal gangs exploiting this international crisis.

Central to this is a world-first Migration and Economic Development Partnership signed by the Home Secretary, Priti Patel, and Rwandan Minister for Foreign Affairs and International Co-Operation, Vincent Biruta.

This will see migrants who make dangerous or illegal journeys, such as by small boat or hidden in lorries, have their asylum claim processed in Rwanda. Those whose claims are accepted will then be supported to build a new and prosperous life in one of the fastest-growing economies, recognised globally for its record on welcoming and integrating migrants.

Under this Partnership the UK is investing £120 million into the economic development and growth of Rwanda. Funding will also be provided to support the delivery of asylum operations, accommodation and integration, similar to the costs incurred in the UK for these services.

Alongside this action, which will disrupt the business model of people-smuggling gangs, the military will also now take operational command of responding to small boats in the Channel, in partnership with Border Force.

This will happen with immediate effect, and be backed up by £50 million in new funding. This change will deliver new boats, aerial surveillance and expert military personnel. In doing so it will bolster Border Force teams and their existing patrol vessels and provide a Wildcat helicopter.

Together this will significantly enhance our ability to detect boats. The increased surveillance will mean we can better gather evidence for criminal investigations, ensuring more people-smugglers who trade in these life-threatening journeys can be referred for prosecution and brought to justice.

Finally, to address the unacceptable, £4.7 million per-day cost to the taxpayer from housing migrants in hotels (including those who have arrived through resettlement programmes), we will be introducing a new, nationwide dispersal system so asylum pressures are more equally spread across local authorities. We will also shortly open a new, bespoke, asylum reception centre in Linton-on-Ouse.

Home Secretary, Priti Patel, said:

The global migration crisis and how we tackle illegal migration requires new world-leading solutions. There are an estimated 80 million people displaced in the world and the global approach to asylum and migration is broken.

Existing approaches have failed and there is no single solution to tackle these problems. Change is needed because people are dying attempting to come to the UK illegally.

Today we have signed a world-leading Migration Partnership with Rwanda which can see those arriving dangerously, illegally or unnecessarily into the UK relocated to have their claims for asylum considered and, if recognised as refugees, to build their lives there. This will help break the people smugglers' business model and prevent loss of life, while ensuring protection for the genuinely vulnerable.

This government is delivering the first comprehensive overhaul of

the asylum system in decades. At the heart of this approach is fairness. Access to the UK's asylum system must be based on need, not on the ability to pay people smugglers. The demands on the current system, the cost to the taxpayer, and the flagrant abuses are increasing. The British public have rightly had enough.

That is why we are overhauling this broken system. Our New Plan for Immigration will improve support for those directly fleeing oppression, persecution and tyranny through safe and legal routes, deter illegal entry, and make it easier to remove those with no right to be in the UK.

Rwandan Minister for Foreign Affairs and International Co-Operation, Minister Vincent Biruta said:

Rwanda is committed to international co-operation and partnership on migration, in particular the opportunities that a robust protection system as well as a comprehensive human capital investment program can create, for migrants and for development of the host country.

There is a global responsibility to prioritise the safety and well-being of migrants, and Rwanda welcomes this Partnership with the United Kingdom to host asylum seekers and migrants, and offer them legal pathways to residence. This is about ensuring that people are protected, respected, and empowered to further their own ambitions and settle permanently in Rwanda if they choose.

These new measures, combined with the reforms to the asylum system and the changes to our laws in the Nationality and Borders Bill, will help deter illegal entry into the UK. In doing so it will help break the business model of the criminal smuggling gangs, protect the lives of those they endanger, ensure continued support for the truly vulnerable, and enhance our ability to remove those with no right to be in the UK.

The UK has a proud history of welcoming those in need. In the last year alone, the UK has provided support for people across the world, providing sanctuary to over 97,000 Hong Kong British Nationals and over 13,000 Afghan nationals – and more than 50,000 people have been granted visas under the Family and Homes for Ukraine Schemes.

It is by reforming the asylum system and taking bold, international action to address the global migration crisis that we can ensure we can keep providing support and protection for those who need it, especially those most vulnerable, through proper safe and legal routes.

[FCDO Minister statement on 34th anniversary of the Anfal campaign](#)

Press release

Minister for Asia and the Middle East, Amanda Milling, has issued a statement on the 34th anniversary of Saddam Hussein's military campaign against the Kurds.



Minister for Asia and the Middle East, Amanda Milling, said:

Today marks the 34th Anniversary of the Anfal campaign – Saddam Hussein's brutal campaign against the Kurdish people in Iraq. Tens of thousands of Iraqi Kurds were slaughtered and thousands more injured, maimed and expelled from their homes. The use of chemical weapons in such a coordinated and planned manner by a state against its own people is horrific beyond comprehension.

My thoughts are with those who died, those who are mourning the loss of loved ones, and those that continue to suffer from the tragic events of 1988. We mark this occasion to honour the memories of those who died and to ensure we never forget Saddam Hussein's monstrous crimes against the Kurdish people.

The UK remains committed in its support for the peace and prosperity of the people of the Kurdistan Region of Iraq.

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Kenya: call for bids for provision of cleaning services

World news story

The British High Commission Nairobi is inviting bids for the provision of cleaning services for its offices.



UK Government

On behalf of the Secretary of State for the Foreign, Commonwealth & Development Office, The British High Commission in Nairobi are seeking the provision of Cleaning services to be delivered at the High Commission's premises. We are therefore looking for a supplier that has the relevant professional skills, experience, technical resources and financial capability to provide comprehensive Cleaning Services in our premises.

Competent and financially stable suppliers are invited to access the invitation to tender documents by following these steps:

1. Open the [Bravo solutions website](#) and sign in
2. Navigate to Provision of Cleaning Services CPG/3944/2022

[Tender: Provision of Cleaning services](#) (PDF, 628 KB, 3 pages)

All prospective bidders are invited for a compulsory site visit on Tuesday 19th April 2022.

Deadlines

The Tender documents should be completed and uploaded on the Bravo System by 15.00hrs (Kenyan Time) on the 9th May 2022.

Contact the Regional Procurement Lead, Mr. Wilhelm Holtmann at Wilhelm.Holtmann@fco.gov.uk for any queries.

Kindly note that the responses will be required to be in English.

The BHC reserves the right not to select any service provider and will only reply to the best-suited organisation.

The BHC will not meet any expenses incurred in preparing your Invitation to tender documents.

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[Report 03/2022: Near miss at Coltishall Lane User Worked Level Crossing, Norfolk, 21 January 2021](#)

[R032022_220414_Coltishall](#)

PDF, 5.46 MB, 43 pages

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Summary

At 17:21 hrs on 21 January 2021, a passenger train narrowly avoided a collision with two cars at Coltishall Lane user worked level crossing, near Hoveton, Norfolk. Road traffic over the crossing was higher than usual as a

result of drivers seeking a diversionary route for their journeys, following an earlier road traffic accident on a nearby main road.

[Forward-facing CCTV footage of the near miss at Colitshall UWC, 21 January 2021](#)

The safe use of the crossing relied solely on telephones to warn users in road vehicles of approaching trains, and the near miss occurred because the car drivers did not telephone the signaller before using the crossing. The investigation found that this may have been because the car drivers were unfamiliar with the crossing, because the signs at the crossing were ineffective in prompting users on how to cross safely, and because the level crossing gates had already been opened. It is also possible that factors such as the increased level of road traffic may have affected the behaviour of road users and their decision-making.

The investigation also found that Network Rail and its predecessors had not taken measures to close or upgrade this crossing, despite being aware of the risks it posed. This was possibly because Network Rail's processes for assessing and controlling risk at the crossing did not take account of some of the factors present, leading to an incomplete understanding of the risks involved in its operation. Additionally, the status of user worked crossings on public roads was not acknowledged within relevant statutory provisions and industry guidance, and this may have affected how safety at these crossings was managed by infrastructure managers. The Office of Rail and Road had previously taken regulatory action, but this had not resulted in action by Network Rail to address the risk at this crossing by the time the near miss occurred.

Recommendations

RAIB's report makes three recommendations. The first is that Network Rail should assess, and if necessary reduce, the risks of incidents and accidents at vehicular user worked crossings which may see significant use by unfamiliar users, consistent with current industry best practice. The second is that Network Rail, in consultation with the Office of Rail and Road and the Department for Transport, should improve signage at user worked crossings which may share features identified in this investigation. The third is that the Department for Transport, in consultation with the Office of Rail and Road and Network Rail, should evaluate the extent to which recent guidance on the drafting and making of level crossing orders will better enable the implementation of improved safety measures at level crossings.

There is one learning point that reminds those responsible for the management of safety of user worked crossings to adhere to the principles of level crossing risk assessment published by ORR in June 2021.

Andrew Hall, Chief Inspector of Rail Accidents said:

"This very near miss involved two road vehicles and took place at a user worked level crossing on a public road. Level crossings are one of the biggest sources of risk on the UK's railways. RAIB has investigated many

accidents and incidents over the last sixteen years and noted considerable improvement in the way risk at many types of level crossing is managed. However, we feel at present the greatest scope for safety improvement exists at user worked crossings, whether on private or public roads. The significant number of such crossings on public roads is of concern because most motorists are unlikely to be familiar with the concept of a level crossing which they must operate themselves. Because of this, they may not use the crossing safely as was the case in this incident. Over more than 20 years, the railway was aware that the safety arrangements at this crossing should be improved, but it seems that bringing about such change was too difficult. The regulatory structure in place to oversee level crossing safety did not result in action being taken at this crossing in time to avoid this incident.

“Our recommendations seek to promote safety improvements at user worked crossings on public roads and to check that regulatory actions being taken to make such improvements easier to achieve have the desired effect.”

Notes to editors

1. The sole purpose of RAIB investigations is to prevent future accidents and incidents and improve railway safety. RAIB does not establish blame, liability or carry out prosecutions.
2. RAIB operates, as far as possible, in an open and transparent manner. While our investigations are completely independent of the railway industry, we do maintain close liaison with railway companies and if we discover matters that may affect the safety of the railway, we make sure that information about them is circulated to the right people as soon as possible, and certainly long before publication of our final report.
3. For media enquiries, please call 01932 440015.

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